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ABSTRACT

This report covers the period from the approval of the Research Coordinating Unit (RCU) by the Office of Education in June 1966 to its termination on June 30, 1969. An introductory section treats the historical background and the establishment and development of the RCU, Other sections deal with: (1) activities and accomplishments in the areas of research and development, information, research coordination, and conferences, (2) personnel, (3) facilities and equipment, (4) major problems and observations, (5) recommendations, and (6) conclusions. (JK)

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FINAL REPORT

Project No. 6-2725
Grant No. OEG-3-6-062725-2213

KANSAS VOCATIONAL EDUCATION RESEARCH COORDINATING UNIT

Christopher E. Barthel, Jr.
Research Foundation of Kansas
Ramada Executive Building
Fifth and Jefferson
Topeka, Kansas 66607

September 1969

U. S. Department of
Health, Education, and Welfare

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U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
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KANSAS VOCATIONAL EDUCATION RESEARCH COORDINATING UNIT

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PREFACE AND ACKNOWLEDGEMENTS

Preface

This is a final report on the Kansas Vocational Education Research Coordinating Unit under the administration of the Research Foundation of Kansas. These activities of the Research Coordinating Unit were terminated on June 30, 1969. This report covers the period from its approval by the Bureau of Research, United States Office of Education, on June 28, 1966 through its termination on June 30, 1969.

Since their creation, the State Research Coordinating Units in their present form have been funded in part by the Bureau of Research of the United States Office of Education. Public Law 90-576, the Vocational Education Amendments of 1968, transferred the funding responsibility for these Units from the Bureau of Research to the agency primarily responsible for vocational education in each state. The Congressional and State appropriations for research in vocational education for Fiscal Year 1970 were not sufficient to provide Kansas with the necessary funds to maintain its Research Coordinating Unit at its 1969 level of operation.

The new Kansas State Plan for Vocational Education provides for research and information services to be administered by the Division of Vocational Education of the Kansas State Department of Education. A critical need still exists in Kansas for an adequate and viable research-development-information mechanism for vocational-technical education. Just what form of organization will eventually be established and just what services will be offered must be determined by the new State Board of Education and its administrative offices.

This report was prepared to serve a dual purpose. First, it is intended to provide a comprehensive summary of the development and activities of the Research Coordinating Unit during the three years of its existence. Second, it identifies major problems encountered and provides suggestions and recommendations, based upon the experiences of the Research Coordinating Unit staff, for the solution of these problems. These recommendations are included with the hope that they may be of value at some future date, as guidelines for the development of a proper research-development-information agency in Kansas, when sufficient resources are again available.

Acknowledgements

The Kansas Research Coordinating Unit was a focal point in our State for the efforts of many organizations and persons. It is not practicable, or even possible, to list all of these at this time. As Director of the Research Coordinating Unit, I would be remiss, however, if I did not mention the contributions to the organization and program and to this report of Mr. George A. Robinson, Director of Research, and Dr. Frank T. Jacobs, Coordinator of Information and Field Services, of the Kansas Unit. The advice and counsel of the members of the Kansas Vocational Education Research Coordinating Committee and the Kansas Vocational Education Research Advisory Council were substantial and highly important to the development of the program, particularly during the first year of operation of the Research Coordinating Unit. The interest and concern of Messrs. John E. Snyder, State Director and Executive Officer of the Kansas State Board for Vocational Education and recently Acting Assistant Commissioner for Education in charge of the Division of Vocational Education of the Kansas State Department of Education, and Dr. F. E. Hartzler, an interim State Director and Executive Officer of the Kansas State Board for Vocational Education, must be stressed. Finally, the support and understanding of Dr. Duane M. Neilsen and Dr. Lawrence Braaten of the Bureau of Research of the United States Office of Education were a continuing source of stimulation for the staff.

Two other groups of persons must be mentioned for their contributions -- the Directors of other State Vocational Education Research Coordinating Units, whose ideas and efforts were generously used by the Kansas Unit in the development of its organization and program, and the vocational education specialists of Kansas, who were understanding users of the Kansas Research Coordinating Unit services.

To all of these persons, I record my warm thanks and deep appreciation.

Christopher E. Barthel, Jr., Director
Kansas Vocational Education Research
Coordinating Unit

INTRODUCTORY SECTION

SUMMARY

On June 28, 1966, the United States Office of Education approved a grant to the Research Foundation of Kansas for the establishment and development of a Kansas Vocational Education Research Coordinating Unit to support and improve vocational-technical education in the State. Initial Grant No. OEG-3-6-062725-2213 provided $113,330 of Federal funds to support the proposed unit, in part, until December 31, 1967. This grant was extended by the Office of Education on December 10, 1968 at an additional cost of $69,374 in Federal funds to support the operations through December 31, 1969. Public Law 90-576, the Vocational Education Amendments of 1968, transferred the administration and funding responsibility for each of the State Vocational Education Research Coordinating Units from the Bureau of Research of the United States Office of Education to the agency in each state primarily responsible for vocational-technical education. This Federal action, coupled with funding uncertainties at both the Federal and State levels, led to a decision to transfer the research, development, and information functions of the Kansas Research Coordinating Unit from the Research Foundation of Kansas to the Division of Vocational Education of the Kansas State Department of Education on July 1, 1969.

The proposal for the establishment of the Research Coordinating Unit listed a number of objectives for the improvement of vocational-technical education in Kansas. From the very first days of its existence, the Kansas Unit encountered serious problems in its efforts to meet the objectives. Among these were (1) inadequate staffing resulting from uncompetitive salary scales, (2) inadequate communication with the Kansas State Board for Vocational Education, (3) inadequate State funds, and (4) ineffective communication with local districts. In July 1968, a reorganization plan was implemented which provided some relief from these problems.

In spite of the obstacles encountered, the Kansas Research Coordinating Unit made a number of contributions to vocational-technical education in the State in both the research and development and information areas. Major substantive reports on research completed through the Research Coordinating Unit were issued and disseminated. A wide variety of research advisory services, particularly relating to research design and proposal development and funding, were provided numerous organizations and persons throughout the State. Research-related services were provided the Kansas State Board for Vocational Education on several occasions.

In the information area, which had the services of a full-time specialist only during the last few months of the life of the Kansas Unit, a wide variety of reports, data, and other material on vocational-technical education and peripheral areas was collected, reviewed, abstracted, and disseminated through a monthly newsletter to over 1200 recipients. A selective dissemination system was established for several specialty areas. The Kansas information program was closely linked with the Educational Resources Information Center (ERIC) Clearinghouse of The Center for Vocational and Technical Education at The Ohio State University, with the Regional Educational Laboratories, and with the Research Coordinating Units of other states.

Numerous projects were undertaken, and most of them completed, to coordinate activities in the vocational-technical education area. The staff participated actively in a wide variety of conferences and conventions, both in and outside of Kansas, to keep abreast of progress in the field and to exchange information on new developments.

The very disappointing curtailment of activities of the Kansas Research Coordinating Unit did not permit a full realization of the established objectives. The experiences, however, did stress the need for a viable research-development-information unit at the State level to support and improve vocational-technical education. Accordintly, two basic recommendations are made -- one for the establishment of a strong planning function for vocational-technical education at the State level and the other for the establishment of a research-development-information unit in the Division of Vocational Education of the Kansas State Department of Education at the earliest practicable time. Justifications and additional recommendations are provided on organization and funding of the proposed unit, and on the information, development, and research functions.

Many basic problems still face vocational-technical education in the United States. These problems are solvable, and it is important to the social and economic advancement of our country that strong and viable research, development, and information functions be established in the states to contribute to the solution of problems of, and generally to undergird, vocational-technical education processes.

INTRODUCTION

Need for RCU-Type Activities in Kansas

Certain long-term trends in Kansas have produced serious dislocations in the socio-economic structure. The problems of Kansas are typical of most states in the Great Plains Area. For the past decade, the State has been faced with the problem of expanding its economic base to offset a decline in farm employment and income. (1)

There was relatively little increase in the population of Kansas during the last decade. The rate of population growth that did occur was substantially less than the rate of growth for the total population of the United States. In 1960, the population of Kansas represented 1.21 % of the United States population. In 1968, this percentage had dropped to 1.15%.

Historically, the economy of Kansas has been oriented to agriculture and agriculture-related industries. Except for the aircraft industry which was centered in Wichita and the petroleum industry which was primarily based in the western half of the State, the economy tended to center around farming, with wheat and cattle as the primary sources of income. In 1960, there were 110,000 farms in Kansas with an average of 456 acres. In 1968, the number of farms had dropped to 91,000 and the average size of each farm had increased to 551 acres. Mechanization and the use of new techniques and products had reduced the manpower required to farm these additional acres. The agricultural production continued to rise while the number of people involved continued to decline.

In 1968, there was a net out-migration from the State of 51,000 persons. In addition, there was a long-term migration from rural to urban areas within the State. Much of this migration resulted from a search for better employment opportunities. This was especially true in the younger age brackets where young people migrated in search of jobs that were no longer available in the rural economy. The result was that many communities found themselves with a relatively high percentage of elderly persons and a relatively low percentage of younger persons in the population.

The per capita personal income for residents of Kansas has consistently been below that of the United States. In 1967, the per capita income in Kansas was $3060. This was 96.9% of the average per capita income throughout the United States. The nine southeast counties in Kansas are included in the Ozarks Regional Commission as a economically depressed area.

These socio-economic trends caused serious concern throughout the State. In 1963, the Legislature of Kansas established the Kansas (2) Department of Economic Development to promote, stimulate, and encourage the general economic welfare and prosperity of the State. It was agreed that Kansas must develop a minimum of 12,000 jobs each year if the fifteen-year downward economic trend brought on by shrinking farm payrolls was to be arrested. Thus, Kansas was committed to a long-range program of economic development to maintain its population and stabilize its economy.

Early in this program, vocational education was identified as one of the tools for alleviating this crisis, with an important role to perform in training people for a rapidly changing labor force. This challenge required those responsible for developing a skilled labor force to reappraise their practices and emphases and to upgrade their programs. Some of the problems which were identified during this reappraisal are:

1. Kansas has a relatively large percentage of small high schools and junior colleges. This is typical of states with a small population spread over a large geographical area. The problem of providing access to effective vocational-technical education for students in these small schools has yet to be solved.

2. Rapid technological advances had raised the skill level required for most entry jobs in business and industry. In addition, the changing industrial pattern in Kansas had caused shifts in the composition of the labor force and created new and different types of occupations. To accomodate these changes required a continuous evaluation of on-going programs and the development of many new and different curricula.

3. The schools in Kansas had traditionally been oriented to the college preparatory program, except for vocational agriculture. This college preparatory emphasis had presisted even though it is generally recognized that less than half of the young people in a community even enrolled in any type of post-secondary institution. Many administrators and counselors had little understanding of industrial occupations or the intricacies of the labor market. Much in-service work was needed to bring about a more realistic approach to education.

4. A declining tax base had limited the funds available for vocational-technical education. In general, the priority of funds for ancillary services and for supportive activities, such as research, had not been as high as the priority of funds for operating costs. This had limited the research and development capability for vocational-technical education in Kansas.

5. The changing labor market in Kansas and the changing job requirements within this labor market required a constant analysis of information from various public and private agencies and the collection, interpretation, and dissemination of information where none was readily available. No such central organization existed for the collection and dissemination of this information.

These types of problems were of long standing in Kansas and were used to justify the establishment of a Kansas Vocational Education Research Coordinating Unit (RCU) in 1966. Each of these problems was complex and persistent. They were not susceptible to quick and easy solution. While some progress was made through RCU activities, it is safe to say that none have been satisfactorily solved. While these problems exist, there will continue to be a critical need for some type of research-development-information agency for vocational-technical education in Kansas.

Federal Incentives

In 1961, President Kennedy established a panel of consultants to study vocational-technical education in the United States and to make recommendations for its improvement. One of the problems encountered by this panel was a lack of comprehensive, objective data for evaluation and decision-making. As a result, this group recommended that a high priority be given to research and development in vocational education and that ten percent of the Federal appropriations for vocational education be set aside for this purpose. This recommendation was incorporated into Public Law 88-210, the Vocational Education Act of 1963.(3)

Events Leading to a Proposal for the Establishment of a Kansas Research Coordinating Unit

For the first time, adequate funds were available for a concentrated attack on the problems that had traditionally plagued vocational education. (4)(5)(6) State officials concerned with research and vocational education in Kansas met to discuss how research and development in vocational education could contribute to the solution of critical problems in the State. As a result of these discussions, it was decided to establish a Research Coordinating Unit for vocational-technical education.

On April 21, 1966, the Research Foundation of Kansas submitted a formal proposal (7) for the establishment and development of a Kansas Vocational Education Research Coordinating Unit with partial funding from Federal sources. This proposal was prepared after a thorough study of the operations of Research Coordinating Units in other states. It was prepared by the Research Foundation staff at the request of and in close cooperation with the staff of the Kansas State Board for Vocational Education. Specific attention was given during the entire proposal development process to the creation of an organization for the State of Kansas which would be attuned to the social and economic needs of the State and designed to utilize and coordinate existing resources for carrying out the identified purposes and functions.

The original drafts of the proposal placed the operations of the Kansas Research Coordinating Unit within the administrative structure of the State Board for Vocational Education, with the Research Foundation providing advisory and contributed services as requested by the State Board. During the latter stages of proposal development, the staff of the State Board, with the consent of personnel in the United States Office of Education, requested that the proposed Research Coordinating Unit be administered by the Research Foundation because of its research emphasis and capabilities. The final draft of the proposal complied with this request, but provided for a maximum of autonomy for the Research Coordinating Unit to permit flexibility and eventual transfer of the organization to the State Board for Vocational Education with a minimum of difficulty.

The Proposal

The proposal carefully identified and clearly delineated the functions of the proposed Research Coordinating Unit. These functions as set forth were:

1. Service as a focal point for information on the research efforts of the State of Kansas in the area of vocational education and occupational needs.

2. Development and maintenance of a detailed inventory of appropriate projects being conducted in different institutions of the State, public and private, for the purposes of identifying strengths and weaknesses and of developing a more effective long-term program of research for the State.

3. Development, for consideration of the State Board for Vocational Education, of appropriate objectives and plans for long-term research for Kansas.

4. As appropriate, overview of the research activities of Kansas institutions, and, in particular, proposed research activities, for the purpose of developing an optimal program of research for the State.

5. Stimulation and encouragement of research in proper institutions of the State, public and private, directed toward the long-term objectives of the State in the area of vocational education and occupational needs by --

   a. identifying significant research problems which need solution.

   b. providing information on state and national research being planned or being conducted on pertinent problems.

   c, encouraging research to support local planning by providing consultant services to local school districts.

   d. providing professional consultation in the development of project proposals and in the solicitation of support for the research covered by the proposals.

6. Service as a linkage mechanism for research and investigations on vocational education and occupational needs being conducted in State institutions -- including the colleges and universities, local school districts, the Office of Economic Analysis, the Research Foundation of Kansas, the Kansas Department of Economic Development, Kansas Labor Department, and other organizations -- and particularly to support the Planning Division of the Kansas Department of Economic Development in the integration of objectives into the comprehensive State planning program.

7. Development of research programs or development of institutions for the conduct of research in those areas in which adequate competence does not exist in Kansas.

8. Exploration of the possibility of developing a statistical technique for making State and local projections of employment needs, educational training, and economic growth without duplicating services already provided by appropriate State agencies.

9. Development of communication with institutions at the Federal level, within Kansas, and appropriate institutions in other states concerned with vocational education and occupational needs for informational purposes and for identifying sources of financial support for research in Kansas. institutions.

10. Development of a system for collecting, analyzing, interpreting, and disseminating national, State, and local information translated in terms of State and local programs of vocational and technical education in Kansas.

11. Development of improved techniques of communication through research to supplement current methods within the State for reporting significant research findings, labor and employment statistics, economic growth data, manpower training, and employment needs to interested State and local groups in Kansas. These improved techniques will attempt to direct such information to the specific requirements of vocational education.

12. Establishment and maintenance of proper communications with the employers of the State for the purpose of identifying research important to long-term needs.

13. Stimulation of the training of young researchers in the State colleges and universities by --

    a. supporting research efforts of worthy students.

    b. encouraging college researchers to assist in voluntary coordination of their research activities by reporting all research activities related to vocational and technical education, employment, economic growth, and population mobility.

14. Assistance, as appropriate, in the design of programs to improve and enhance the image of vocational education.

15. Development of recommendations on the nature of and plans for vocational education in the State system of education and establishment of objectives for research to assist in planning and decision-making to reach accepted goals.

16. Development of specific plans for the continuation of the activities of the Research Coordinating Unit after the completion of the thirty-seven months activity partially supported by the Federal Government.

The proposal set forth a pattern of organization which established a Kansas Vocational Education Research Coordinating Unit as an arm of the Research Foundation for vocational-technical education. The Research Foundation was administratively responsible for the activities of the Research Coordinating Unit and served as custodian for State and Federal research funds. The working relationships with the State Board for Vocational Education, its staff, and other interested groups were carefully defined.

The actual operation of the Research Coordinating Unit was under the administration of a Director who reported to the Executive Director of the Research Foundation. The amount and type of contributed services by members of the Research Foundation staff were fully described. The proposal provided for a Kansas Vocational Education Research Advisory Council which represented diverse interests throughout the State.

The proposal established and described the specifications for five positions in the Research Coordinating Unit. These were a Director (full time), an Assistant Director for Information Services (part time), an Assistant Director for Field Services (part time), a secretary (full time), and a Clerk-Typist (full time). In addition, the staff of the Research Foundation contributed services equivalent to another 50% of a position. The proposal requested approximately $200,000 of Federal funds to help defray the costs of an estimated $270,000 program.

ESTABLISHMENT AND DEVELOPMENT OF THE RESEARCH COORDINATING UNIT

Federal Grant

The proposal was approved by the United States Commissioer of Education on June 17, 1966. The initial grant (No. OEG-3-6-062725-2213) (8) of $113,330 was dated June 28, 1966 and covered the period from June 28, 1966 through December 31, 1967, the first eighteen months of the program. On February 15, 1968, this Grant was extended in time, at no additional cost to the Federal Government, through June 30, 1968. The Grant period was further extended on August 28, 1968, at no additional cost to the Federal Government, through September 30, 1968. On December 10, 1968, the Grant was extended by the United States Office of Education in the amount of $69,374 to cover the period through December 31, 1969.

According to the terms of the Grant, local funds were to be provided through contributed services by the Research Foundation of Kansas during the first year and by budget contributions from the Research Foundation and the State Board for Vocational Education during the second and third years. The amount of State matching funds was to be 10% the first year, 25% the second year, and 50% the third year. As indicated above, the first grant was made on June 28, 1966. Because of the cash basis laws in Kansas, the Research Foundation was forced to await the actual delivery of Federal funds before starting the Research Coordinating Unit operations. These funds were made available on September 17, 1966. The program of the Research Coordinating Unit was formally initiated on October 1, 1966 by assigning an Acting Director from the staff of the Research Foundation to the Kansas Research Coordinating Unit.

Personnel

Personnel problems were the first major obstacle to the establishment and development of the Kansas Research Coordinating Unit and continued to retard the development and activities of the organization throughout its entire existence. The proposal set forth five positions and described the desired specifications for each position. The Research Foundation selected a salary range that could reasonably be expected to attract qualified persons for these positions.

The State Finance Council of Kansas, which reviews and approves financial expenditures in the State, reduced the salary range for the three professional positions by six steps and the salary range for the two clerical positions by one step. The proposed and approved salary ranges were:

Position	Proposed Salary Range	Approved Salary Range
Director	$15,000-16,537	10,416-14,592
Coordinator of Information Services *	10,000-11,000	7,044-9,924
Coordinator of Field Services *	10,000-11,000	7,044-9,924
Secretary	3,900-4,500	3,360-4,740
Secretary	3,900-4,500	3,360-4,740

The proposed range for the Director would have provided a starting salary of approximately $15,000. Consultants who assisted in the design of the organization questioned whether this salary would attract the type of person who could successfully direct the proposed activities of the Research Coordinating Unit. The salary range approved by the Finance Council reduced this starting salary to $10,416. All promising applicants withdrew their applications for the Directorship because of this approved starting salary.

Appeals for reconsideration of the approved salaries were made to the Governor as Chairman of the State Finance Council. These appeals were unsuccessful. Because no qualified applicants for the position of Director were available, Mr. H. H. Young, Research Coordinator for Industry in the Research Foundation, was loaned to the Kansas Research Coordinating Unit. Mr. Young assumed the position of Acting Director on October 1, 1966. He continued in this capacity until the employment of Mr. George A. Robinson for the Director position on February 1, 1967.

Because salaries were not competetive, similar difficulty was encountered in staffing the other two professional positions. As an interim arrangement, the Director arranged for the employment of persons on part-time temporary bases to initiate the information and field services.

Advisory Groups

To assure consideration of diverse points of view and to provide a comprehensive input of information from researchers, specialists, and industrialists in the field, two advisory groups were established for the Kansas Research Coordinating Unit.

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* During salary considerations, the titles of the positions of Assistant Director for Information Services and Assistant Director for Field Services were changed to Coordinator of Information Services and Coordinator of Field Services respectively.

The first group, designated as the Kansas Vocational Education Research Coordinating Committee, was composed of individuals who were closely connected with vocational education, employment needs, and manpower requirements in the State. It was planned that this "working committee" would meet quarterly to advise and assist the Kansas Research Coordinating Unit staff to accomplish the objectives outlined in the original proposal. Appendix A is a list of persons appointed to this Committee.

The second group was the Kansas Vocational Education Research Advisory Council. The members of this group were also concerned with the many phases of vocational education. In addition, because of his individual administrative responsibilities, each member was in an excellent position to (a) channel research findings toward Statewide objectives for vocational education and (b) integrate such findings with other long-term programs conducted for the social and economic welfare of Kansas. It was planned that this Council would meet semi-annually to review all activities of the Research Coordinating Unit and to furnish advice on projected plans of operation. A list of members of this Council is included in this report as Appendix B.

Need for Reorganization of Research Coordinating Unit

At the end of the first year of operation, it became evident that the Kansas Research Coordinating Unit had not been able to implement fully the purposes for which it was established.

On October 11, 1967, the First Annual Report (9) of the Kansas Vocational Education Research Coordinating Unit was submitted to the Division of Comprehensive and Vocational Education Research of the United States Office of Education. On October 16, 1967, the first annual review and evaluation of the activities of the Research Coordinating Unit was held. Dr. Duane M. Neilson, Chief, Education Resources Development Branch of the Bureau of Research, United States Office of Education, and members of the Kansas Vocational Education Research Advisory Council and the Kansas Vocational Education Research Coordinating Committee participated in this evaluation. Although accomplishments were reported, both the annual report and the review and evaluation stressed that the Kansas Research Coordinating Unit had not carried out many of the functions for which it was responsible. After October, 1967, it continued to fall behind in its schedule of activities.

Two of the principal reasons why the Research Coordinating Unit had not been able to carry out its proposed mission were:

1. The salary scales approved by the State Finance Council were not competitive for attracting qualified personnel, and necessary positions remained unfilled.

2. The semi-autonomous organization of the Research Coordinating Unit did not permit the effective utilization of the research and administrative capabilities of the Research Foundation of Kansas in the design and conduct of projects and programs.

The following four areas of activity had not received adequate attention:

a. The development of long-term plans for an optimal research program for vocational-technical education in Kansas.

b. The collection and dissemination of information on the occupational needs of business and industry in Kansas.

c. The development of linkage mechanisms with local districts, State and Federal agencies, and other interested groups concerned with research and innovation in vocational education and occupational needs.

d. The development of viable information services in the broad area of vocational education and occupational needs.

These activities of the Research Coordinating Unit, because of staff limitations, had emphasized research, investigations, and studies relating to significant problem areas identified by the staff of the State Board for Vocational Education or by the staff of the Research Coordinating Unit itself rather than a comprehensive attack on the slate of objectives outlined in the proposal approved by the United States Office of Education.

A series of actions by related groups further emphasized the need for reorganization of the Kansas Vocational Education Research Coordinating Unit. Actions were taken by the following organizations:

Board of Directors of the Research Foundation. The problems and deficiencies of the Kansas Vocational Education Research Coordinating Unit were reviewed by the Executive Committee and the Board of Directors of the Research Foundation of Kansas during their meetings of January 1968. The Board instructed the Executive Director to work with the Executive Officer of the Kansas State Board for Vocational Education to prepare recommendations for organizational and operational changes which would redirect the activities of the Research Coordinating Unit toward the objectives outlined in the approved proposal.

1968 Kansas Legislature. In considering the appropriations for the Research Foundation for Fiscal Year 1969, a Subcommittee of the Ways and Means Committee of the Kansas Senate instructed the Research Foundation to carry out the operations of the Research Coordinating Unit using as matching funds for Federal contributions the funds and services provided as general operating appropriations to the Research Foundation.

Because of the magnitude of the matching funds and services required, this instruction forced a reorientation of all of the programs of the Research Foundation to place major emphasis by the Research Foundation on Research Coordinating Unit activities.

Consultants to the State of Kansas. Early in 1968, the State of Kansas employed management consultants of Ling-Temco-Vought, Inc. to study the occupational and technical training activities of the State as these activities related to the functions of the Ozarks Regional Commission in nine counties of Southeast Kansas. This study (10) recommended that --

1. The Research Coordinating Unit devote more specific attention to the needs of industry.
2. Stronger linkage be established between the Research Coordinating Unit and the State Board's activities in curriculum development.
3. An extension and upgrading of the staff of the Research Coordinating Unit be effected to provide a productive, viable program of services in research and information.

Proposal for Reorganization of Research Coordinating Unit

A proposal (11) for reorganization of the Kansas Vocational Education Research Coordinating Unit was developed by the Executive Director of the Research Foundation in cooperation with the State Board for Vocational Education and was approved and signed by the State Director and Executive Officer of the State Board. This proposal was submitted to the Bureau of Research, United States Office of Education, in April 1968.

In essence, the proposed reorganization was intended to adjust the activities of the Research Coordinating Unit to --

1. Redirect activities toward the objectives of the original proposal.
2. Utilize more effectively the capabilities of the Research Foundation.

3. Stimulate more effecitve communications among users of vocational education research.

4. Integrate more effectively the activities of the Research Coordinating Unit with those of the State Board for Vocational Education.

The proposed reorganization set forth the following major changes in the Kansas Vocational Education Research Coordinating Unit --

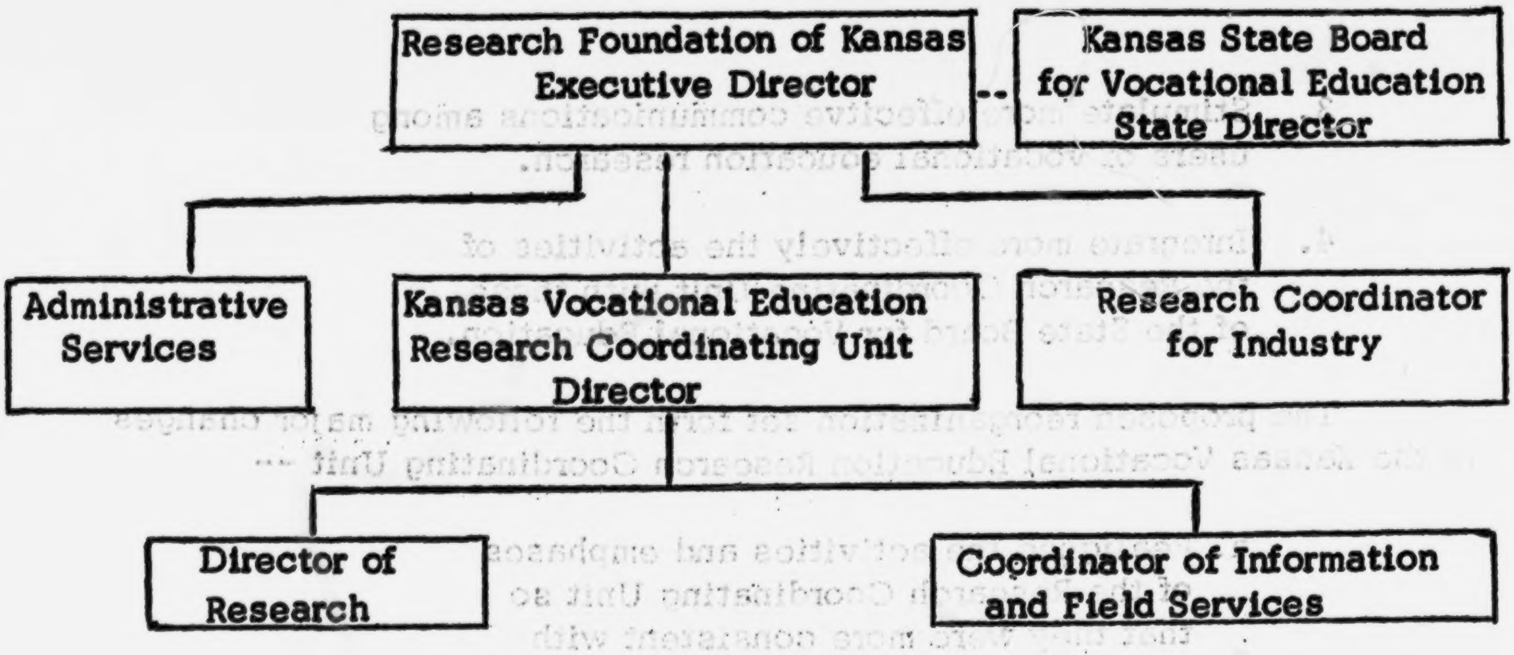
a. Realigned the activities and emphases of the Research Coordinating Unit so that they were more consistent with the purposes of the original proposal.

b. Combined the position of Director of the Research Coordinating Unit with that of the Executive Director of the Research Foundation of Kansas. The purposes of this change was to use the experience and capabilities of the Research Foundation more effectively.

c. Created the position of Director of Research to supervise and coordinate the research activities of the Research Coordinating Unit.

d. Combined the part-time positions of Coordinator of Information Services and Coordinator of Field Services into one position of Coordinator of Information and Field Services. This permitted the Research Foundation to offer a more attractive salary for the combined position.

The following organization chart shows the new alignment of responsibilities.


Research Foundation of Kansas
Executive Director
Kansas State Board
for Vocational Education
State Director
Administrative
Services
Kansas Vocational Education
Research Coordinating Unit
Director
Research Coordinator
for Industry
Director of
Research
Coordinator of Information
and Field Services

In this chart the Executive Director of the Research Foundation of Kansas also serves as the Director of the Research Coordinating Unit. The chart shows a direct linkage between the Executive Director and the Director of the State Board for Vocational Education. Through such linkage, it was expected that the Research Coordinating Unit could react promptly to the requirements of the State Board.

Reporting to the Director of the Research Coordinating Unit full-time professional staff members, a Director of Research and a Coordinator of Information and Field Services. All administrative services for the Research Coordinating Unit were provided through the Research Foundation. In addition, a Research Coordinator for Industry on the staff of the Research Foundation, devoted a substantial part of his time to liaison with industry on vocational education requirements and programs.

In summary, the Research Coordinating Unit operated as a unit of the Research Foundation instead of as a semiautonomous organization as originally planned. This change broadened substantially the sphere of activities of the Research Coordinating Unit and provided more flexibility of operation and lower unit costs of services because of the use of larger existing facilities and available personnel support.

Implementation of Reorganization Plan

The proposed reorganization was approved, and the following personnel changes were made effective in July 1968:

1. Dr. Christopher E. Barthel, Jr., Executive Director, Research Foundation of Kansas, assumed the responsibilities of Director of the Kansas Vocational Education Research Coordinating Unit.

2. Mr. George A. Robinson assumed the responsibilities of Director of Research for the Research Coordinating Unit.

On August 16, 1969, Dr. Frank T. Jacobs was appointed to the new position of Coordinator of Information and Field Services. On August 1, 1968, Mrs. Mildred Jones was transferred from the Research Foundation to a new position of Information Assistant in the Research Coordinating Unit to support Dr. Jacobs in the development of a viable information service to undergird the vocational-technical education activities of Kansas. The additional staff and the redefinition of emphases produced some of the results anticipated in the reorganization plan. Among the prime accomplishments were:

a. A broader integration and coordination of the activities of the Research Coordinating Unit with other programs directed toward the social and economic advancement of Kansas. Of particular significance were the development of close working relationships with the Governor's Interdepartmental Committee on Children and Youth, the Ozarks Regional Commission, and the Kansas Industrial Extension Service.

b. A more effective use of Research Foundation of Kansas resources by the Research Coordinating Unit.

c. A concentration by the Director of Research on research and development functions which led to the completion of all projects under his supervision by June 30, 1969.

d. A strengthening and wider use of the information services of the Research Coordinating Unit by organizations and specialists of the State.

e. An improvement of communications between the Research Foundation and the Bureau of Research, United States Office of Education, the Vocational Education Research Coordinating Units of other states, and the staff of the Kansas State Board for Vocational Education, which in January 1969 was integrated into a new Kansas State Department of Education as a Division of Vocational Education.

Transfer of Research Coordinating Unit Functions to Division of Vocational Education

On October 16, 1968, Public Law 90-576, the Vocational Education Amendments of 1968 (12) was signed by President Johnson. Part C of this legislation provided for a transfer of the funding and administration of State Research Coordinating Units from the United States Office of Education to the agency in each state primarily responsible for vocational education activities. On January 17, 1969, the Director of the Division of Comprehensive and Vocational Education Research and the Director of the Division of Vocational and Technical Education, both of the United States Office of Education, issued procedures (13) ... "to accomplish an orderly transition of Research Coordinating Units for vocational Education (RCU's) from U.S.O.E. Grants to State administration..." This was followed on February 14, 1969 by further instructions for the transition. (14) The Fourth National RCU Directors Meeting in Salt Lake City during the period March 25-27, 1969 emphasized the orderly transition of the RCU's to state administration.

During the budget hearings for both the Division of Vocational Education and the Research Foundation of Kansas, in late 1968 and early 1969, agreement was reached that the functions of the Kansas Research Coordinating Unit be transferred from the Research Foundation to the Division of Vocational Education. During this period, and to the time of writing of this report, the Executive Director of the Research Foundation, as Director of the Kansas Research Coordinating Unit, has worked very closely with the Acting Assistant Commissioner of Education in charge of the Division of Vocational Education and his staff to effect an orderly transfer. Because of uncertainties in the Fiscal Year 1970 budgets of both the Federal Government and the State, July 1, 1969 was established as the date of transfer. The *Kansas State Plan for Vocational Education,* (15) stipulated by the Vocational Education Amendments of 1968, provides for administration of the research and development and information functions previously handled by the Kansas Research Coordinating Unit after that date.

ACTIVITIES AND ACCOMPLISHMENTS

ACTIVITIES AND ACCOMPLISHMENTS

The activities and accomplishments of the Kansas Vocational Education Research Coordinating Unit under the administration of the Research Foundation of Kansas are listed in four categories -- research and development activities, information activities, coordination activities, and conference and convention activities.

Research and Development Activities

The research and development activities of the Kansas Research Coordinating Unit were limited by insufficient staff time. During most of the three-year period of operation, from October 1, 1966 until August 16, 1968, the Director was the only full-time, continuing professional employee. He was required to divide his time among administration, research, information, and field services. Some relief was given by the research assistant program, to be discussed later, and by the appointment of part-time or temporary employees. For the most part, these positions were filled with graduate students whose work required considerable supervision and review. Only during the last ten months of the program was another full-time employee available to coordinate the information and field service activities.

The research and development activities can be categorized as studies completed through the Research Coordinating Unit, proposal advisory services, other research advisory services, and research-related activities.

Studies Completed through Research Coordinating Unit

During the first half of the 1969 calendar year, emphasis was given by the Director and the Director of Research to the completion of principal projects prior to the established date of transfer, June 30, 1969. Major research and development studies completed during the period October 1, 1966 - June 30, 1969 were covered by the following publications:

1. Elson, Donald E. A Study of RCU Information Services. Topeka, Kansas, Kansas Vocational Education Research Coordinating Unit, November 1967.
   This study was conducted to determine what information services were provided by the Research Coordinating Units of the different states. Types of services provided and differences in services between state-department oriented units and those which were university oriented were analyzed.

2. Robinson, George A. RCU Staff Study. Topeka, Kansas, Kansas Vocational Education Research Coordinating Unit, December 1967.
   Returns were received from 37 (84.0 per cent) of the State Research Coordinating Units, and provided information on types of staff, number of positions, duties, salaries, etc. The study provided guidance for the development of recommendations for staffing the RCU's.

3. Shretha, Shanker D., and Robinson, George A. A Preliminary Study of Kansas Area Vocational-Technical Schools. Topeka, Kansas, Kansas Vocational Education Research Coordinating Unit, December 1967.
   An attempt was made (a) to gain a better idea of the functioning of area vocational-technical schools in Kansas by identifying strengths and weaknesses and by securing data that would be useful in planning, developing, and evaluating programs and (b) to obtain a base for further study of the area vocational-technical schools.

4. Robinson, George A., Elson, Donald E., and DeMichele, Joseph. A Study to Determine the Need for a Veterinary Aide Training Program in Kansas. Topeka, Kansas, Kansas Vocational Education Research Coordinating Unit, June 1968.
   Veterinarians who practiced in Kansas were surveyed to determine the need for trained aides in the practice of veterinary medicine. Suggestions were received concerning the type and extent of training considered necessary to the different practices, which were mainly large animal, small animal, or a combination practice.

5. Elson, Donald E. Operational Procedures for Multiple-Teacher Department of Vocational Agriculture. Topeka, Kansas, Kansas Vocational Education Research Coordinating Unit, June 1968.
   In this study the opinions of teachers, administrators, and State Department personnel were compared regarding multiple-teacher departments of vocational agriculture. Recommendations were provided in several related publications including a guidelines handbook, which was developed as an outcome of the study.

6. Elson, Donald E. Abstracts of Studies in Vocational Education. Topeka, Kansas, Kansas Vocational Education Research Coordinating Unit, August 1968.
   Master's reports and theses in agricultural education and home economics education at Kansas State University for the period 1963 to 1968, inclusive, were abstracted and compiled by subject area.

7. Elson, Donald E., and Robinson, George A. Need for a Post-High School Vocational Training Program in Horticulture. Topeka, Kansas, Kansas Vocational Education Research Coordinating Unit, November 1968.
   A selected sample of employers was contacted by mail to determine the extent of need for trained horticultural workers; the areas to be included in training programs; and interest in assisting with training programs and in the subsequent employment of trainees.

8. Hartzler, F. E., and Robinson, George A. A Pilot Study for Securing Occupational Data. Topeka, Kansas, Kansas Vocational Education Research Coordinating Unit, March 1969.
   This study had as its purpose the testing of a method for securing occupational information and to determine occupational aspirations for 1428 senior students in the public schools of a three-county area in Kansas.

9. Jacobs, Frank T. A Report on the Training of Sub-Professional Workers for Libraries. Topeka, Kansas, Kansas Vocational Education Research Coordinating Unit, 1969.
   This report compiled information on vocational programs for sub-professional workers in libraries from individual librarians, professional associations of librarians, exemplary programs, and curriculum guides in several states.

10. Larsen, Thomas L. Abstracts of Kansas Research in Vocational Education. Topeka, Kansas, Kansas Vocational Education Research Coordinating Unit, June, 1969.
    This volume included abstracts of specialist reports, Master's reports, and special problem reports in agricultural education, trade and industrial education, and technical education from Kansas State University and Kansas State College of Pittsburg for the period beginning with the summer of 1968 through spring of 1969.

In addition, a follow-up study of 1965, 1966, and 1967 graduates from vocational-technical programs in the State of Kansas was initiated and substantial data collected by area of vocational services. Requested information was of the type included in United States Office of Education Form No. 4045 -- type of employment, if working; activity, if not working; additional training completed; wages; etc. Information from the study was used and reported, but not as a comprehensive report on the study.

Proposal Advisory Services

In addition to carrying out and monitoring research and development activities, the Research Coordinating Unit provided advisory services in the design of research and development projects and the preparation of proposals for vocational-technical education specialists of Kansas in a variety of subject matter areas and in a variety of ways. Principal services are listed in the following categories -- proposals reviewed and referred to other agencies; proposals reviewed and referred to the Bureau of Research, United States Office of Education; proposals reviewed and returned to originator, and proposals reviewed and action pending.

Proposals reviewed and referred to other agencies:

1. Barron, Howard O. A Program to Prepare High School Students and Adults for Skilled Employment in Aeronautical Industries.
   This proposal was submitted to the United States Office of Education through the Kansas State Department of Education Coordinator for Federal Programs for consideration under Title III of the Elementary and Secondary Education Act. No funds were obligated.
2. Burnett, Onan. Integrating Vocational Role and Skill Development with Treatment in a Mental Hospital
   This proposal was referred to Vocational Rehabilitation of the Kansas State Department of Social Welfare for consideration and action.
3. Nichols, Robert, et. al. A Developmental and Demonstration Program in Vocational Education for Emotionally Disturbed Patients in a State Hospital.
   This proposal was referred to Vocational Rehabilitation of the Kansas State Department of Social Welfare for consideration and action by that agency.

Proposals reviewed and referred to the Bureau of Research, United States Office of Education:

1. Albracht, James. An Internship Program for the Preparation of Teachers for Agricultural Supply Technology Programs in Area Vocational Schools.

2. Weaver, Gerald L. Development and Application of a New Methodology for Drafting Education in Vocational-Technical Institutions.

3 Burnham, James. A Vocational Guidance and Testing Program for Matriculating Students in an Area Vocational-Technical School.

4. Morse, Richard L. S. Consumer Education for Disadvantaged Adults.

Proposals reviewed and returned to originator:

1. Hayden, R. W. A High School and Post High School Curriculum for Life Insurance Underwriters with Study-Programmed Learning Texts as Instructional Material.

2. Sours, Charles. A Study of Student Aptitudes and Socio-Economic Factors with Reference to Enrollment in Secondary Industrial Arts Courses.

3. Russell, R. B. Development of a Program Text in Inventory Control.

Proposal reviewed and action pending:

a. Garhart, Kent. Proposed Program and Facility Expansion of the Manhattan AVTS for Students with Special Needs.

Other Research Advisory Services

In addition to the proposal advisory services outlined above, the staff of the Kansas Vocational Education Research Coordinating Unit worked in a consulting capacity with various individuals and organizations on a wide variety of projects. A few of the more important and time-consuming services included the following:

1. Collected supporting materials for use by Dr. Ben S. Vineyard, Chairman, Trade and Technical Education, School of Technology, Kansas State College of Pittsburg, for use in a proposal entitled Establishment and Development of a Vocational and Technical Curriculum Center.

2. Worked with Mr. Kent Garhart, Director of Special Education, Unified School District 383; Mr. Nick Talarico, Director, Manhattan Area Vocational-Technical School; and Mr. James Marshall, Special Education, Kansas State Department of Education, in reviewing a proposal previously submitted to the United States Office of Education for consideration. A new proposal was developed for submission to the Division of Vocational-Technical Education, Kansas State Department of Education.

3. Assisted Mr. Lee Sprague, Student Personnel Supervisor, Southeast Kansas Area Vocational-Technical School, Coffeyville, in developing a proposal entitled Project Occupational Information for submission to the Regional Office, United States Office of Education, for small grants funding consideration.

4. Worked in early 1964 toward the design of a model for use in the follow-up of vocational-technical students (whether graduates or dropouts) with Dr. Carl Barber, Region VI, United States Office of Education, in cooperation with the State Board for Vocational Education. On March 18 a group of vocational education administrators and counselors met to review the concept. This project has been referred to Dr. Kenneth Hoffman, Department of Business and Business Education, Emporia State Teachers College, Emporia, Kansas for development.

5. In cooperation with the State Board for Vocational Education and the Ozarks Regional Commission developed a Proposal for Establishment and Development of a Southeast Kansas Human Engineering Program and submitted it to the United States Office of Education for support.

6. Served the Agricultural Education Division, State Board for Vocational Education, at two meetings with an advisory group at which the findings of the ornamental horticulture study were reviewed and tentative program development plans were discussed.

7. Served the Agricultural Education Division, State Board for Vocational Education, at a meeting with an advisory group, at which the emphasis was upon development of a veterinary aide training program.

8. Assisted with the development of a proposal for implementing expanded vocational education programs in Southeast Kansas. This proposal was submitted to the Ozarks Regional Commission for funding.

Research Related Activities

From time to time during the period of this report, the staff was called upon to collect information or to provide other services related to the preparation of major reports or other functions of the State Board for Vocational Education. These services ranged from very short-term contributions to major responsibilities for the report or function. Two of the more significant services were:

1. Description of Kansas Projected Program Activities in Vocational Education for Fiscal Year 1968
2. Description of Kansas Projected Program Activities in Vocational Education for Fiscal Year 1969.

The first activity was developed in cooperation with the Director and Executive Officer, Kansas State Board for Vocational Education, and his service supervisors; occupational data were obtained from the Employment Security Division, Kansas Department of Labor. The statistical section was developed for the second activity from occupational data received from Employment Security.

Information Activities

Information Services

The information services of the Kansas Vocational Education

Research Coordinating Unit were never fully developed because of inadequate staff time. A full-time Coordinator of Information and Field Services was not available until late in 1968. Prior to that time, two persons were assigned to this function on a part-time basis. For most of the three-year life of the Research Coordinating Unit, the information function was carried out by the Director who was required to share his time with numerous other responsibilities.

The Research Coordinating Unit was an entirely new concept for vocational education in Kansas. As a first step, it was felt necessary to inform interested persons about the services available and to create an awareness on the part of these persons of the contributions that such an organization could make. The development of this awareness was a problem in communications with researchers and practitioners throughout the State. It required considerable effort that must be sustained over a period of time. There was never sufficient staff time to fully accomplish this.

In spite of these handicaps, some progress was made in implementing the information function of the Research Coordinating Unit. The Research Coordinating Unit did operate, to some extent, as a linkage mechanism among local practitioners, college and university researchers, and state and national agencies involved in the collection and dissemination of information. Many persons availed themselves of the information resources of the Research Coordinating Unit and a considerable quantity of research materials was reviewed, interpreted, abstracted, and disseminated.

Information Resources

The Research Coordinating Unit acquired a library of approximately 450 major publications covering a wide range of topics pertinent to vocational-technical education in Kansas. The span of coverage is indicated by the catalogue headings: administration and supervision, curriculum development, educational programs, employment and occupations, evaluation and follow-up, facilities and equipment, guidance, counseling and measurements, historical studies, individuals with special needs, manpower needs, philosophy and objectives, research design and development, student characteristics, teacher education, and teaching and learning. Publications pertinent to all areas of vocational education and its ancillary services were included under these headings.

Microfiche was not used extensively. A survey of the school districts in Kansas indicated that equipment for the use of microfiche was practically non-existent and the geographical characteristics of the State made it impractical for researchers to travel to Topeka to use such equipment. Microfiche was of value only to the six colleges and universities of the State and to a few of the larger school districts.

The Research Coordinating Unit made available a comprehensive file of research reference publications. Complete files of the Abstracts of Research and Related Materials and the Abstracts of Instructional Materials from the ERIC Clearinghouse at Ohio State University and the Research in Education Index series from the U. S. Department of Health, Education, and Welfare were maintained. These were supplemented with such research references as the Manpower Research Inventory and the Pacesetters in Innovation, publications from the U. S. Department of Health, Education, and Welfare. All of these publications were made readily available and their use was encouraged by interested persons.

The Director of Research was a member of a national ad hoc committee established by the Clearinghouse for Vocational-Technical Education at Ohio State University. The purpose of this committee was to study and make recommendations for effective information systems at the state level. The deliberations of this committee resulted in a comprehensive set of guidelines (16) for establishing and operating an information system in vocational-technical education at the state level.

Liaison with other Research Coordinating Units and with research centers was maintained by an exchange of newsletters and attendance at conferences called by various professional and governmental agencies. These activities permitted the Kansas Vocational Education Research Coordinating Unit to maintain an overview of research and development in other states and to relate this to research and development activities in Kansas.

Information Dissemination

All research materials received by the Research Coordinating Unit were reviewed with the objective of identifying potential users. Publications which appeared to be pertinent to vocational-technical education in Kansas were catalogued and listed in a monthly newsletter, Vocational Education Research Highlights, with an invitation to all interested persons to secure appropriate publications on a loan basis. The relevancy of a publication to vocational-technical education was interpeted in the broadest possible terms to include all aspects of occupational education and its ancillary services.

After the employment of a Coordinator of Information and Field Services late in 1968, a program of selective dissemination was initiated. Specific groups of potential information users were identified and specific lists of publications assumed to be pertinent to their interests were developed. Periodically, these groups were notified of the availability of these selected publications. Examples of these groups were junior college administrators, directors of area vocational-technical schools, teachers of various vocational subjects, guidance counselors, etc.

Individuals interested in a particular problem were notified by letter when research materials related to this problem were received. This program of selective dissemination was successful in the short time that it operated and resulted in a substantial increase in the use of the information resources of the Research Coordinating Unit.

Vocational Education Research Highlights was published each month starting in January of 1967. The number of copies for each issue increased from approximately 250 in the first part of 1967 to approximately 1300 in June of 1969. The mailing list was quite comprehensive and included such groups as legislators, the heads and research directors of appropriate State Agencies, selected members of college and university faculties, and general school administrators, in addition to vocational educators and guidance counselors.

The newsletter was seen as a communications link among researchers in vocational-technical education, State and Federal Agencies, and the practitioners at the local district level. Research studies of general interest were abstracted and included as one device to stimulate an awareness of the new developments in vocational-technical education. Principal research publications received by the Research Coordinating Unit were listed to encourage the widest possible use of the Research Coordinating Unit information resources.

No formal survey of reader opinion was made for Vocational Education Research Highlights, but the number of requests for publications and the other favorable comments suggest that this newsletter was well received by its readers.

Publication Dissemination

A number of publications were developed and/or disseminated by the Kansas Vocational Education Research Coordinating Unit. The publication and the approximate number of copies disseminated were:

1. A Study of RCU Information Services by the Kansas Research Coordinating Unit staff -- 100 copies
2. RCU Staff Study by the Kansas Research Coordinating Unit staff -- 100 copies
3. A Preliminary Study of Kansas Area Vocational Technical Schools by Shanker D. Shrestha and George A. Robinson-- 90 copies
4. A Study to Determine the Need for a Veterinary Aide Training Program in Kansas by George A. Robinson, Donald E. Elson, and Joseph DeMichele -- 125 copies

5. Guidelines for Multiple-Teacher Departments of Vocational Agriculture by Donald E. Elson -- 125 copies

6. Abstracts of Studies in Vocational Education by Donald E. Elson --600 copies

7. Needs for a Post-High School Vocational Training Program in Horticulture by George A. Robinson and Donald E. Elson-- 100 copies

8. A Pilot Study for Securing Occupational Data by F. E. Hartzler and George A. Robinson -- 225 copies

9. A Report on the Training of Sub-Professional Workers for Libraries. This report was prepared by the Research Coordinating Unit for the Flint Hills Area Vocational School, Emporia, Kansas and was disseminated by the School.

10. Abstracts of Kansas Research in Vocational Education by Thomas L. Larsen -- 200 copies

11. Vocational Education Research Proposal Preparation by Donald E. Elson -- 1000 copies. This publication was mailed with the newsletter of August 31, 1967.

12. Description of Kansas Projected Program Activities in Vocational Education for Fiscal Year 1968. This was prepared in cooperation with the State Board for Vocational Education and was disseminated by the State Board.

13. A Pilot Vocational Education and Guidance Project for Southeast Kansas by Frank T. Jacobs -- 125 copies

14. An Internship Program for the Preparation of Teachers for Agricultural Supply Technology Programs in Area Vocational Schools by Dr. James Albracht -- 360 copies

15. Operational Procedures for Multiple-Teacher Departments of Vocational Agriculture by Donald E. Elson -- 125 copies

Research Coordination Activities

The staff of the Kansas Vocational Education Research Coordinating Unit was involved in activities to coordinate and monitor research and to provide continuity of activities. Principal activities of this type follow:

1. The Coordinator of Information and Field Services was a member of the Statewide Ad Hoc Vocational Guidance Committee established by the Kansas State Department of Public Instruction. He was appointed Chairman of a Subcommittee charged with the evaluation of vocational guidance and counselor preparation programs throughout the State, and with the formulation of recommendations for the improvement of these programs.

2. Liaison was maintained with the Ozarks Regional Commission, which is concerned with nine counties in Southeast Kansas as part of its economically depressed area. Of particular concern was the pilot manpower development study conducted by United Dynamics, Inc., in Coffeyville, Kansas under contract with the Ozarks Regional Commission. The Research Coordinating Unit had prime responsibility for recommending continuity and follow-through for this pilot program.

3. The staff devoted major time and effort to a study and interpretation of the Vocational Education Amendments of 1968. Research and information plans for submission to the State Board for Vocational Education for its consideration and possible inclusion in the Kansas State Plan for Vocational Education were developed.

4. The Director was appointed Chairman of a Statewide Subcommittee on Foster Care of the Governor's Interdepartmental Committee on Children and Youth. The Subcommittee assessed the present status of foster care in the State and the needs for improved and extended foster care activities for Kansas. Education, and in particular vocational education, received major attention as an important element in proper foster care programs.

5. The Director of Research assisted Dr. Richard L. D. Morse, Professor and Head, Department of Family Economics, Kansas State University, Manhattan, with the development of a summer institute proposal entitled Consumer Education for Disadvantaged Adults.

6. The Director of Research conducted surveys to determine interest in two summer institutes. These were a two-week summer institute on consumer education for disadvantaged adults (mentioned above) and an eighteen-month multiple institute for strengthening vocational programs in rural areas.

7. The Director of Research assisted with a proposed summer training institute entitled An Interdisciplinary Approach to Vocational-Technical Teaching. This proposal was developed by Dr. R. J. Agan, College of Education, Kansas State University; Mr. F. E. Hartzler, Department of Business and Business Education, Emporia State Teachers College; and Dr. Ben S. Vineyard, School of Technology, Kansas State College of Pittsburg. A preliminary outline was submitted to the Bureau of Research, U. S. Office of Education.

Conference and Convention Activities

Participation in conferences and conventions was an important part of the staff activities at the Kansas Vocational Education Research Coordinating Unit. This was important because the concept of the Research Coordinating Unit was new to vocational education, and its development required the exploration of new ideas and procedures. The conferences called by the Bureau of Research and other research agencies were a valuable source of in-service training for the staff. The exchange of ideas and the discussion of mutual problems in these meetings helped to mold the philosophy and objectives of the Research Coordinating Unit.

Some of these conferences served as a means of disseminating information about the purposes of the Research Coordinating Unit and the services that could be made available. Presentations and discussions before groups were an effective way of informing potential clients of the research information available and of creating an awareness of the need for and contributions of research.

Some of the conferences and conventions in which the staff participated are listed in Appendix C. Only the meetings of major importance were included to show the scope of staff participation.

PERSONNEL

Staffing of Research Coordinating Unit

Staffing problems were a major and continuing source of difficulty for the Kansas Research Coordinating Unit. For the most part, these problems arose because the salaries approved by the State Finance Council were not compatable with the qualifications required for an effective, creative research - development - information activity in a major area of national and State concern crucially in need of advancement and reform.

Because of the low salary scales, it was necessary to fill the position of Coordinator of Information and Coordinator of Field Services with part-time employees on a temporary basis until after the reorganization of the Research Coordinating Unit which was effective in July 1968. A full-time Coordinator of Information and Field Services on a permanent basis was available only during the last ten months of operation. Prior to this time, the only full-time professional employee was the Director of the Research Coordinating Unit.

A complete staff summary for the three years of operation of the Kansas Research Coordinating Unit is included as Appendix D.

Because of lack of funds, it was necessary to terminate the employment of all staff members of the Kansas Research Coordinating Unit on June 30, 1969.

Training of Research Personnel

During the 1968 fiscal year, four positions of research assistant were established for the Kansas Vocational Education Research Coordinating Unit. The primary purpose of these positions was to provide experience for potential researchers in vocational-technical education. A secondary purpose was to supplement the research capabilities of the several colleges and universities in the State and of the Research Coordinating Unit.

Because these positions were staffed with graduate students, the turnover was high and the program required a substantial amount of time of the Director until July 1968 and of the Director of Research from July 1968 to June 30, 1969, to supervise and review the research. Six different individuals were employed in the four positions during the 1968 fiscal year. After the end of the fiscal year, only one new appointment was made to these positions. This reduction resulted from the inadequacy of funds, not from any waning of enthusiasm for the research assistant program.

The individuals assigned to these positions and the period of their employment are included in Appendix D, as part of the staff summary.

FACILITIES AND EQUIPMENT

A three-year lease between Executive Manor, Inc., a corporation in Topeka, Kansas, and the Research Foundation was executed on August 15, 1966. The lease, which became effective on September 6, 1966, provided for renting approximately 1100 square feet of office space in the Ramada Executive Building, Topeka. Utilities - except telephone - janitorial service, use of lavoratory facilities, and parking space were included in the $4,000 annual rental rate. Provisions were made for use of conference rooms without cost, when more room was needed for meetings.

In addition to four staff offices, the suite contained a receptionist area, secretary's office, a file room, and a supply-work room.

The budget allowed $4,000 for equipment. The individual items, including desks, chairs, electric typewriters, mineograph equipment, calculator, etc., are listed in Appendix E. The non-expendable items of furniture and equipment were transferred to the Division of Vocational Education, Kansas State Department of Education, on July 1, 1969.

FINDINGS AND ANALYSIS

MAJOR PROBLEMS AND OBSERVATIONS

Problems in Research Coordinating Unit Operations

The State Research Coordinating Units were created to serve as a means for mobilizing research and development and information functions to improve vocational-technical education. The Kansas Research Coordinating Unit was an experimental activity involving a major effort. The effort would be abortive if the experiences gained during the experimental activity were not directed toward an improvement of vocational-technical education and a strengthening of the research and development and information functions in the future.

During the three-year life of the Kansas Vocational Education Research Coordinating Unit, there were certain persistent problems which limited its effectiveness. These problems consumed a great deal of staff effort, but were never adequately solved. In order to provide a basis for recommendations to follow, some of the major problems encountered are listed as follows:

Inadequate Staffing. This was the greatest problem of the Research Coordinating Unit and was indirectly responsible for some of the other problems. The reasons for this problem have been fully discussed in previous sections and need not be repeated here.

Inadequate Communication with the State Board for Vocational Education. The staff of the Kansas Vocational Education Research Coordinating Unit generally felt that they had not been able to develop adequate communication with the administrative staff of the State Board for Vocational Education. Two events undoubtedly contributed to this problem. First, the State Director for Vocational Education was recalled to active military duty in 1968. His position was filled with an Acting Director on an interim basis. Also, in 1966, the voters of Kansas approved a constitutional amendment which placed the State agency for vocational education within the framework of a State Department of Education. Prior to this time, the State Department of Vocational Education had operated under an autonomous State Board separate from the State Department of Public Instruction. This required a major change in policies and procedures and required a great deal of staff time of the State Board for Vocational Education to plan and coordinate the transition.

The staffing patterns of the State Board for Vocational Education and of the Research Coordinating Unit also contributed to the ineffective communication. A basic, but not always fully understood, principle is that communication requires time and other resources. Thus, the inadequate staffs of the two organizations were forced to keep their operations going, with inadequate time and resources for communication and coordination.

Inadequate State Funds. The requirement for funds to match Federal contributions undoubtedly limited the research activities in Kansas, particularly at the local level. Most Kansas schools are relatively small with a fairly limited financial base. Most of the budget is usually allocated to operation, with little left over for research and development. Local schools in Kansas cannot exceed a 4% increase in budget annually without State approval. All of these limitations made it difficult to find matching funds for research and development in local districts where the need was greatest.

Ineffective Communication with Local Districts. Communication between the Kansas Vocational Education Research Coordinating Unit and local districts throughout the State did not reach a desired effectiveness. A primary reason for this was the inability of the Research Coordinating Unit to staff fully the information and field services until late in 1968. Prior to this time, there was insufficient staff time to develop the information and field services along with all of the other functions of the Research Coordinating Unit.

Observations

The Executive Director of the Research Foundation of Kansas, who served as Director of the Kansas Vocational Education Research Coordinating Unit after the 1968 reorganization, is not a practicing vocational education specialist. For many years, however, he has served as a research specialist and has been deeply concerned about, and extremely interested in, vocational and technical education at all levels. It is believed that certain of his observations relative to vocational education and the Kansas Research Coordinating Unit might provide a somewhat different approach to the solution of vocational-technical education problems. Thus, a few selected observations are listed at this point, also to serve as a basis for recommendations to follow. These are grouped as observations on vocational-technical education; observations on the planning function; and observations on the research, development, and information functions as applied to vocational-technical education.

Vocational-Technical Education

Vocational-technical education in the United States, and certainly in Kansas, has been and is currently facing a number of basic problems. Among these are --

Image of Vocational-Technical Education. Our society during recent years has placed so much emphasis on college and university education for everybody that an inaccurate and fuzzy image of vocational-technical education has evolved. Today all too many persons, including many who should know better, view vocational-technical education as second-rate training for those persons who cannot make the grade in the colleges and universities.

Our society is long overdue in establishing a positive aggressive image of vocational-technical education as an activity competing with the colleges and universities for the brightest of minds.

Role of Vocational-Technical Education. Vocational-technical education is a fragmented activity conducted in different types of institutions -- high-schools, junior colleges, technical institutes, vocational-technical schools, and some colleges and universities. This fragmentation has resulted in different attitudes of different persons, including officials responsible for such education and training, of the role of vocational-technical education. A definition of the role may vary from "just another practical course in an academic institution" to "the training of individuals to meet the requirements of specific jobs."

A severe need exists for definition of the role of vocational-technical education in the different types of institutions in which such activities are conducted.

Rapidly Changing Technology. Rapidly changing technology produces major and rapid changes in the occupational needs of our society. These occupational needs force changes in curricula and teacher competences in vocational-technical education.

It is imperative that vocational-technical education become involved in the highly complex emerging area of technology forecasting. This is an area requiring training, experience, and creativity of a very high order.

Occupational Needs. Throughout the United States, major criticism has been directed toward vocational-technical education in that improvements are needed in matching the curricula to specific occupational needs.

While serious attention is being directed to this problem by many organizations, the development of accurate patterns of occupational needs in different geographical areas remains a severe need of vocational-technical education.

Guidance. Intimately linked with the image problem is the lack of adequate guidance services directed toward vocational-technical education. A noteworthy criticism is that high school counseling is primarily geared to directing our youth to the colleges and universities. Since only about twenty percent of our young people complete college and university programs, eighty per cent of our youth are neglected in the present high school counseling activities.

New innovations in counseling specifically atuned to vocational-technical education is highly important and necessary in today's society.

Coordination with Other Programs. Many new Federal and State programs have emerged in recent years that could be utilized in assisting and strengthening vocational-technical education. Such programs certainly include activities in the economic opportunity, economic development, welfare, urban redevelopment, etc. areas; the State Technical Services Program; among others.

Inadequate attention has been given at the Federal, State, and local levels to the coordination of these different programs to achieve optimal benefit for our society. It is generally not understood that coordination requires time and other resources. Proper resources should be provided vocational-technical education to permit reasonable liaison with appropriate other programs.

It is beyond the scope of this report to go into more detail in the listing of basic problems confronting vocational-technical education. It might be added, however, that the solution of some of the problems might provide substantial relief to many of the severe social problems which confront our nation today.

The Planning Function

In a sophisticated space exploration era, the above problems basic to vocational-technical education are solveable, or, at least, the severity of the problems can be reduced. An important first step could certainly be the development and utilization of a strong planning function at the state level for vocational-technical education. The state plans for vocational-technical education, being developed in compliance with Public Law 90-576, the Vocational Education Amendments of 1968, are directed toward this purpose.

Today, "planning" is a much used work, often without adequate knowledge of the highly specialized process of planning. The process is not completed with a document; rather it is a continuing activity requiring specialized knowledge and highly skilled people. The process involves a number of concrete steps including --

(a) Establishment of objectives and goals for meeting the objectives.

(b) Development of strategies to realize the established goals.

(c) Identification of resources for implementing the strategies.

(d) Development of a specific schedule of activities for implementing the strategies with the identified resources.

(e) Wide publicizing of the strategies and schedule for the purpose of mobilizing understanding and support.

(f) Initiation of activities.

(g) Periodic evaluation of progress to determine effectiveness of the strategies and the resources applied.

(h) Modification of strategies as necessary for realizing the established goals.

(i) Repetition of the entire process.

The planning function should be a basic responsibility of the chief executive of any organization, in the case of vocational-technical education in Kansas, the Assistant Commissioner of Education responsible for the Division of Vocational Education of the Kansas State Department of Education.

The Research, Development, and Information Functions

The research, development, and information functions are also inadequately understood activities. In essense, they are nothing more than "tools," or service activities, to improve and advance the operations of any organization. The functions are entirely different in purpose, but they are overlapping in nature and intimately interrelated. These functions are briefly considered separately as follows:

(1) Research

"Research" is a nebulous term that has defied precise definition. As it is generally used, the word may be applied to almost any activity that involves the collection and analysis of data. Everything from the simple collection of data through high-level theoretical investigation is often included under the general term of research.

Most research falls into two broad categories. One is basic research which is usually theoretical and has as its purpose the creation of new knowledge.

The second category is applied research which is usually problem oriented and directed toward providing specific answers to a particular problem. Both types of research are desirable and necessary. They overlap to some extent, and there is no sharp dividing line between them.

There is consensus at local, state, and national levels that an adequate program of research is essential to continued improvement in vocational-technical education. The experience of the Kansas Research Coordinating Unit and of Research Coordinating Units in other states substantiates this. When adequate research is not available, decision-making tends to be based on tradition, myth, and expediency. As might be expected, the Research Coordinating Units have achieved varying degrees of success. There has been widespread criticism that they have been too theoretical and have had little impact on vocational programs at the local level. There has been parallel criticism that they have not been theoretical enough to solve the basic problems facing vocational-technical education. These conflicting criticisms are understandable because of the widely varying nature of Research Coordinating Unit purposes and operations in the different states. (17)

Even in the face of such criticism, there does not appear to be any tendency to diminish the importance of research. Instead, there is a strong move to examine and revise the basic concepts involved. Public Law 90-576, the Vocational Education Amendments of 1968, continues to emphasize the importance of research. However, 50% of the funds available to research are set aside for distribution directly to the state directors of vocational education. This provision places responsibility on state-level personnel for maximizing the benefits from these funds. Allocating research monies to the states for distribution at the state and local levels implies new and different objectives for research.

Public Law 90-576 obviously intends state-allocated research monies to be used for program improvement. This intention may have been the result of comments critizing research during committee hearings. In 1963 the panel of consultants on vocational education suggested that vocational education was not meeting the current need. Prior to 1963, research had been carried out primarily by graduate student thesis. Even after the 1963 Act (3), research made limited impact on program improvement.

The 1968 Advisory Council on Vocational Education voiced genuine concern about the nature and value of research at both the state and Federal levels. Failure to find needed answers resulted in disappointment at the failure of research to point the way. The most frequent criticism has been the lack of tangible evidence of any impact on vocational programs. The report of the Advisory Council on Vocational Education states,

> The most frequent criticism of the research program related to the lack of tangible evidence of impact made on vocational programs as they currently exist and the lack of impact on the development of new programs and methods. In this relation, two specific limitations need to be mentioned: (1) the lack of dissemination of results and (2) the failure to interpret the results of completed research in operational terms. (18)

Perhaps this is the reason that Public Law 90-576 places much emphasis on the dissemination of information and the development of innovative programs. The need to relate research to program planning places a challenge of state directors of vocational education to utilize research monies in such a way that they do indeed bring about program improvement.

There is no difference of opinion as to the need for research; there is vigorous debate as to the organization and manner of implementing research.

(2) Development

The development function should be a prime force in implementing research, in applying the results of research to the solution of specific problems or to the improvement and advancement of the operations of an organization. Thus, this function must be intimately linked with the research function, and must enjoy close liaison with the operations of the organization which it serves. It should be an action-orientated linkage between research and operations. Responsibilities of the development function should include the interpretation of research results and the design of projects and programs, perhaps even new organizational units, to adapt selected research findings to the specific uses of the organization being served.

In the vocational-technical education sphere, the development function should provide guidance and assistance in the interpretation of occupational data and the design of necessary mechanisms for the procurement of better occupational data, both present requirements and requirements projected for the years ahead. It should provide guidance and assistance in evaluating existing vocational-technical education programs as a means for meeting present and projected occupation requirements. It should study and evaluate curricula development activities and recommend improvements in existing curricula and entirely new curricula to better serve society by providing skills and technical manpower to meet today's complex challenges. It should develop and recommend pilot projects for the improvement of the different segments of vocational-technical education, and assist in the evaluation of implemented pilot projects, as well as on-going projects.

The development function should be a stimulant to innovation -- a source of exemplary programs in vocational-technical education. There can be no argument against the development function as a necessary element for the improvement and advancement of vocational-technical education.

(3) Information

Research and development activities throughout the world have generated vast quantities of new information; it is estimated that the world's body of knowledge now doubles in a period of between five and ten years. Realizing that research and development results are nothing more than intellectual exercises unless put to use, our society throughout the world is applying ever-increasing investments to the design and maintenance of information systems. As a result, much of the research and development results of mankind are immediately available -- provided that State and local linkage is made with the central information systems.

There is general agreement that an effective information system is basic to the improvement of vocational-technical education programs.

Research into the process of change in organizations identifies five distinct phases through which the practitioner goes in this specialized kind of decision-making. These phases and the relationship of the information system are:

Awareness, during which the practitioner learns of the existence of one or more alternatives to his current practice. In general, information leading to awareness of alternatives comes from the mass media or from specialized publications such as professional journals and newsletters.

Interest, during which the practitioner seeks out more information about the alternatives. Information in this phase tends to come from other innovative documents such as abstracts of research.

Evaluation, during which the practitioner makes an "in-the-head" assessment of the alternatives and how it may relate to his particular problems. In this phase, there is heavy reliance on interpersonal communication.

Trial, during which an alternative is tried on a limited basis through some sort of pilot project. During the trial phase, there is also heavy reliance on interpersonal communication, and recent evidence suggests that special printed analyses of information are also important here.

Adoption, during which the full-scale operational use of the innovation is begun. (19)

This research shows that the practitioner tends to draw information from a variety of sources as he moves through the phases of innovation and that interpersonal communication is an essential component in the information system.

The development of an effective information system should give consideration to the following principles:

1. An effective information system should provide a variety of outputs, not only for the different segments of practitioners but also for the same person at different stages of his work.

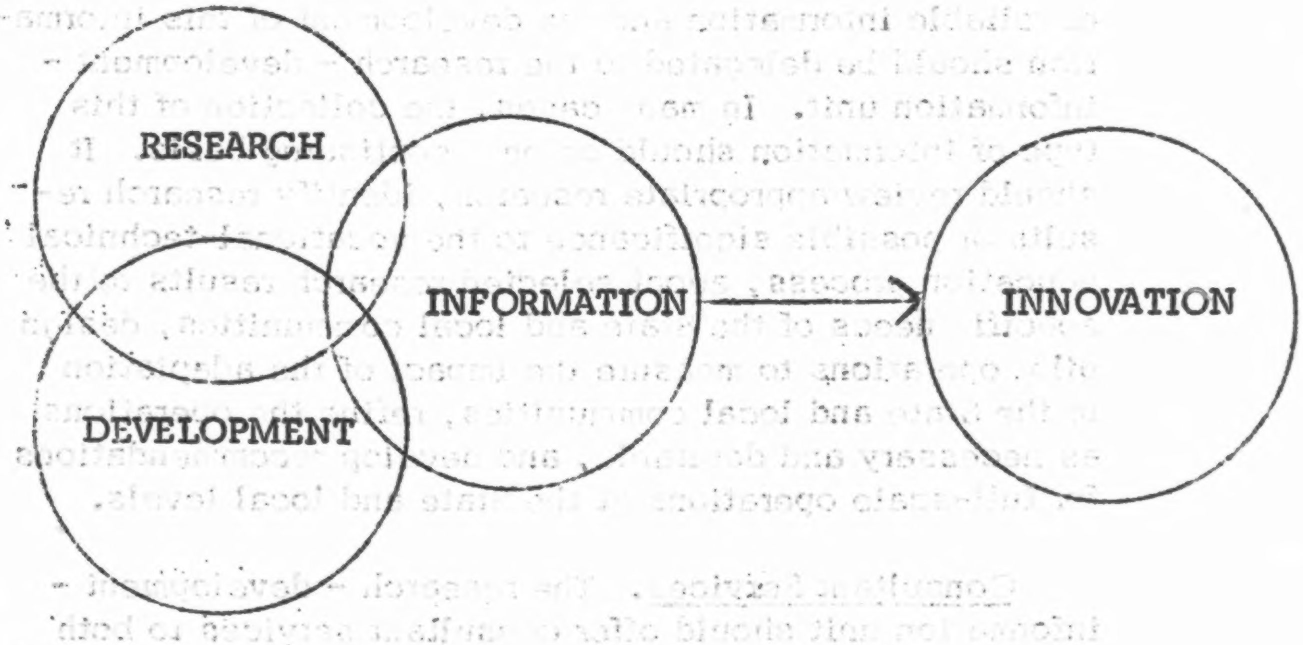
2. The most frequently used information is from the source closest and most accessible to the practitioner regardless of whether he perceives this to be quality information or not. For this reason, an effective system must provide information that is readily accessible to the practitioners in vocational education.

3. Person-to-person information is preferred and the most frequently used source among practice-orientated groups. Because people prefer to interact with other people, an effective information system must involve human components as a source of contact for the practitioner.

4. To provide flexibility and maximum utilization, an effective information system should be designed to provide broad-based, multi-level services, and

hopefully extend beyond vocational-technical education per se. As an example, dissemination services should be available to general administrators and counselors, as well as vocational educators, and should include such ancillary areas as vocational guidance and career development in addition to vocational education.

So intimately interrelated are the research, development, and information functions that they may be considered as elements of a single system necessary for innovation. The system might be diagrammed as indicated below:



A Research - Development - Information Unit

Because of the close interrelationships of the functions, they should be closely linked organizationally -- preferably in a single research - development - information unit for relatively small operations.

Any state research - development - information unit should serve as a resource to assist in the development, coordination, and evaluation of vocational education at the State and local levels. It should review related research, monitor proposal development, contribute to the planning process, assist in coordination of activities and in evaluation of the education process.

The Coordination aspect should provide a linkage among the local districts, various State agencies involved, and the appropriate state, regional, and national information systems and should be sufficient to assure the adequate dissemination of results. The evaluation aspect should assess the adequacy of the activity in terms of its stated objectives and to pinpoint areas that need improvement.

More specifically, the research - development - information unit should be involved in the following activities:

Planning Services. Planning for vocational-technical education is the responsibility of the administrative officer in charge. However, sound planning requires a foundation of reliable information and the development of this information should be delegated to the research - development - information unit. In many cases, the collection of this type of information should be on a continuing basis. It should review appropriate research, identify research results of possible significance to the vocational-technical education process, adopt selected research results to the specific needs of the State and local communities, design pilot operations to measure the impact of the adaptation to the State and local communities, refine the operations as necessary and desirable, and develop recommendations for full-scale operations at the State and local levels.

Consultant Services. The research - development - information unit should offer consultant services to both the staff of the State Division of Vocational Education and to local practitioners. These services should include activities such as the development of current information on related research and on examples of similar exemplary programs, the design of programs, and the preparation of suggestions for the organization and development of proposals and on possible sources of funding, etc.

Exemplary and Innovative Programs. The research - development - information unit should be involved in exemplary and innovative programs for two reasons. First, it can form a linkage among local districts, various State agencies involved, and the various information systems throughout the country. Through this, the results of current research and experience in other areas can be brought to bear on the design and development of the program. Second, this linkage can assure that the results of successful programs can be fully disseminated so that they can have the widest possible utilization.

Evaluation. The primary purpose for evaluation is the improvement of the program. The evaulation aspect should apply to both the on-going and experimental programs.

The evaluation of the on-going programs should identify areas that need improvement and should be on a continuing basis. Examples of this type of evaluation are placement records of vocational programs, cost-efficiency studies, enrollment trends, etc.

The evaluation of experimental programs should be designed to determine its effectiveness in terms of its stated objectives. This evaluation should determine whether the program has sufficient merit to warrant general adoption.

Because of the rapidly increasing and changing demands upon vocational-technical education today, a research - development - information unit appears essential to the orderly growth and development of this extremely important area of human endeavor.

CONCLUSIONS AND RECOMMENDATIONS

CONCLUSIONS

The disappointing development of the programs of the Kansas Vocational Education Research Coordinating Unit and the even more disappointing curtailment of activities of the Unit on June 30, 1969 did not permit a full realization of the objectives set for the organization. Yet the young organization did make important contributions to vocational-technical education in Kansas -- in research; in development; and in information collection, analysis and interpretation, and dissemination. It served as a mechanism for coordination in these areas, and, very significantly, it pointed to the need for a research-development-information unit at the State level to undergird and improve the education process.

But many basic problems still face vocational-technical education, in Kansas and in the United States. These problems are solveable, and it is important to the social and economic advancement of Kansas and of our country that strong and viable research, development, and information functions be established and maintained in the states to contribute to the solution of problems of, and generally to support, vocational-technical education.

RECOMMENDATIONS

Based upon the problems encountered in the operations of the Kansas Research Coordinating Unit over a three-year period and the observations listed in a previous section of this report, the following two basic recommendations are presented in the hope that they may assist in the improvement of vocational-technical education in the State of Kansas.

1. It is recommended that a strong planning function be established in the Office of the Assistant Commissioner of Education responsible for the Division of Vocational Education at the earliest practicable time. This function should be provided with the support necessary for effectively carrying out all of the steps of the planning process.

2. It is recommended that a research-development-information unit be established in the Division of Vocational Education of the Kansas State Department of Education at the earliest practicable time. This unit should be organized as a system whose administrative head reports directly to the Assistant Commissioner of Education responsible for the Division of Vocational Education.

The following discussion and recommendations are presented to serve as guidelines for the implementation of Recommendation 2 above.

Organization and Funding

The organization and funding of the research-development-information unit should provide for a unit with (1) the most effective communications possible with practitioners at the local level and with staff members of the State Division of Vocational Education and (2) continuity of operation regardless of the level of Federal funding.

Any organization adopted should assure that the research and development activities of this unit will be relevant to the problems of vocational education throughout the State.

The research, development, and information functions require time and resources. An adequate job cannot be done by persons already assigned a full work load. To be effective, many research, development, and information activities should be continuous and should be carried out over an extended period of time. Effective results will require the assignment of qualified personnel to the three functions on a full-time, stable, continuing basis. It is, therefore, further recommended --

a. That the level of State funding provide for a minimal operation so that continuity can be assured regardless of the level of Federal appropriations.

b. That the research-development-information unit be assigned responsibility for the three functions on a Statewide basis.

c. That the professional staff of the research-development-information unit be assigned responsibility for providing leadership in relating research and development to the improvement of vocational-technical education programs at the local level. To implement this responsibility, the staff should have a working knowledge of the problems involved in both vocational education and in research and development so that the results of research can be interpreted in operational terms. Because this type of activity must depend largely on cooperation, the ability to develop good working relationships among diverse groups of people and the ability to write clearly, concisely, and effectively should be criteria of high priority in the selection of staff members.

Information

The objectives of the information function of the research-development-information unit should be:

(1) To gather, analyze, select, and organize information pertinent to decision-making by the State Division of Vocational Education.

(2) To develop comparative data to stimulate improvement of vocational-technical education programs at the local level.

(3) To develop information required for reports to various State and Federal agencies.

(4) To maintain records that will provide continuity of information and permit the State Division of Vocational Education to analyze developments from a time perspective.

(5) To interpret and abstract current research information as a means of stimulating innovation among local districts.

(6) To provide interested public and private agencies and the news media with information on current developments in all aspects of vocational-technical education.

The activities of the information function can be divided into those involved in information collection and information dissemination. Typical activities that may logically be included in the information collection category are:

(a) Evaluation and/or development of standarized procedures among local districts for reporting pertinent information.

(b) Analysis and interpretation of information input to the State Division of Vocational Education from any source.

(c) Maintenance of information records required for the various activities of the State Division of Vocational Education.

(d) Collection and interpretation of information and research results from the various state, regional, and national information systems.

(e) Provision of linkage between vocational education practitioners and other persons involved in vocational-technical education at the local, state, and collegiate levels.

(f) Collection, analysis, and interpretation of information from appropriate public and private agencies interested in vocational-technical education.

Typical activities that may be included in the information dissemination category are:

(a) Development of data and compilation of reports as requested by the Assistant Commissioner of Education responsible for the Division of Vocational Education.

(b) Publication of newsletters on current research, trends, innovations, etc., in both vocational education and career development.

(c) Participation in appropriate conferences to provide background information on research and development in vocational education and the ancillary services.

(d) Identification and dissemination to local districts of information pertinent to specific problems.

(e) Maintenance of a selective dissemination program for appropriate groups in vocational-technical education.

(f) Preparation of appropriate news releases to inform the public of the progress and purpose of vocational education.

In order to develop these types of information activities, it is further recommended --

d. That the information function be given initial priority in the development of the research-development-information unit. This priority is justified because of the vast quantities of information on vocational-technical education flowing from multimillion-dollar research and development programs at the Federal and regional levels and in other states. It is also justified as a mechanism for elimination of duplication of efforts made by researchers at the Federal and regional levels and in other states.

e. That funding be provided on an increasing basis to permit the carrying out of the collection and dissemination activities outlined above.

Development

The improvement of vocational-technical education programs requires developmental activities, and such activities should be a primary concern of the research and development functions of the research-development-information unit. This emphasis is necessary to adapt appropriate existing information to State and local situations.

It is, therefore, recommended --

f. That the development function of the research-development-information unit be given next priority, implemented as early as practicable, and provided adequate support for an effective contribution to the improvement of vocational-technical education.

Research

The research function, including both basic and applied research, is necessary to produce new information for vocational-technical education. Applied research is essential to support the development function in adapting information to State and local situations. Very importantly, the function provides a specialty staff resource to the development and information functions in the carrying out of their activities.

It is, therefore, recommended --

g. That the research function of the research-development-information unit be implemented as soon as practicable and the level of support be increased as rapidly as possible to provide necessary undergirding to the development and information functions.

h. That the research activities emphasize applied research specifically related to the problems of vocational-technical education throughout the State.

i. That the primary concern of the research function be the stimulation and coordination of applied research through other agencies wherever possible. This should be done to involve a maximum number of persons in these activities.

j. That the performance of research be guided by specific priorities approved by the Assistant Commissioner of Education responsible for the Division of Vocational Education.

k. That basic research be primarily the responsibility of Kansas colleges and universities, with the research function of the research-development-information unit serving a monitoring, stimulating, supporting, and coordinating role.

SUPPLEMENTARY AND APPENDIX MATERIALS

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(5) Memorandum dated March 11, 1966, from David S. Bushnell, Director, Division of Adult and Vocational Research, Bureau of Research, United States Office of Education, to State Directors of Vocational Education on "Establishment of State Vocational Education Research Coordinating Units."

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(12) Public Law 90-576, Vocational Education Amendments of 1968 (H. R. 18366, 90th Congress), October 16, 1968.

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(17) Keith Goldhammer, et al. Research Coordinating Unit Program Evaluation. Corvallis, Oregon, Center for Educational Research and Service, Oregon State University, March 1969.

(18) Subcommittee on Education of the Committee on Labor and Public Welfare, United States Senate. Notes and Working Papers Concerning the Administration of Programs Authorized under Vocational Education Act of 1963, Public Law 88-210, As Amended (Committee Print, 90th Congress, 2nd Session). Washington, U. S. Government Printing Office, 1968.

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APPENDIX A

Kansas Vocational Education Research Coordinating Committee Membership

1. Dr. R. J. Agan
   College of Education
   Kansas State University, Manhattan

2. Mr. Clarence Becker, Chief
   Commerce Division
   Kansas Department of Economic Development, Topeka

3. Dr. C. R. Cain, Chairman
   Applied Arts Division
   Fort Hays Kansas State College, Hays

4. Dr. Jarvin M. Emmerson, Chief Economist
   Office of Economic Analysis
   c/o Kansas State University, Manhattan

5. Professor F. E. Hartzler
   Department of Business and Business Education
   Kansas State Teachers College, Emporia

6. Mr. Kenneth Hay, Supervisor
   Area Vocational-Technical Schools
   Kansas State Board for Vocational Education, Topeka

7. Mr. Carl Heinrich, Director
   Community Junior College Section
   Division of Accreditation and Teacher Certification
   State Department of Public Instruction, Topeka

8. Mr. Ernest Maxwell, Head
   Research and Statistics Division
   Employment Security Division
   Kansas Department of Labor, Topeka

9. Dr. Ben S. Vineyard
   School of Technology
   Kansas State College of Pittsburg, Pittsburg

APPENDIX B

Kansas Vocational Education Research Advisory Council Membership

1. Mr. Delno L. Bass, Commissioner
   Kansas Department of Labor, Topeka

2. Mr. Wesley A. Bastido, Manager
   Associated General Contractors of America
   Kansas Builders Chapter 3420, Topeka

3. Mr. George Billings, Director, Industrial Development Sales
   Kansas Gas and Electric Company, Wichita

4. Mr. M. W. Buffon, Executive Director
   Employment Security Division, Kansas Department of Labor, Topeka

5. Mrs. Funston J. Eckdall, Legislation Chairman
   Kansas Congress of Parents and Teachers, Emporia

6. Professor Leland Hobson, Director, Engineering Experiment Station, Kansas State University, Manhattan

7. Dr. Fran Jabara, Head, Business Administration
   Wichita State University, Wichita

8. Mr. Roy Johnson, Tax Research Attorney
   Kansas State Chamber of Commerce, Topeka

9. Dr. O. L. Plucker, Superintendent
   Unified School District 500, Kansas City

10. Mr. Kenneth Razak, Director
    Kansas Industrial Extension Service
    c/o Kansas State University, Manhattan

11. Mr. John Snyder, Executive Director
    State Board for Vocational Education, Topeka

12. Dr. Howard Walker, Director, Extension Center
    The University of Kansas, Lawrence

APPENDIX C

Participation in Conferences and Conventions

July 1, 1966 - September 30, 1967

1. National RCU Conference, Washington, D. C., September 21-22, 1966 -- C. E. Barthel, Jr., H. H. Young
2. American Vocational Association Conference, Denver, Colorado, December 5-8, 1966 -- H. H. Young
3. Western Region RCU Directors Conference, Phoenix, Arizona, December 15-16, 1966 -- H. H. Young
4. Region VI, Bureau of Adult and Vocational Education Conference, Kansas City, Missouri, March 21-23, 1967 -- George A. Robinson
5. First Annual State Convention and Contests, Kansas Association of the Vocational Industrial Clubs of America, Kansas State College of Pittsburg, April 14, 1967 -- George A. Robinson
6. National RCU Conference, Zim, Illinois, April 25-27, 1967 -- George A. Robinson
7. Thirty-Ninth Annual Convention, Kansas Association of Future Farmers of America, Kansas State University, Manhattan, Kansas, May 1, 1967 -- George A. Robinson
8. Forty-Seventh Annual State Conference of Vocational Agriculture Teachers, Kansas State University, Manhattan, Kansas, June 6-7, 1967 -- George A. Robinson
9. Annual Workshop Conference (Trade and Industrial Education, Technical Education, Health Occupations Education, Manpower Development and Training), Kansas State College of Pittsburg, Pittsburg, Kansas, June 12, 1967 -- George A. Robinson
10. Annual Business Education Conference, Kansas State Teachers College, Emporia, August 2, 1967 -- Donald E. Elson, Paul Shrestha -- George A. Robinson
11. Forty-Fourth Annual Conference for Vocational Home Economics Teachers, Topeka, Kansas, August 15, 1967 -- Donald E. Elson -- George A. Robinson
12. Four-State RCU Directors Meeting, Mid-Continent Regional Educational Laboratory, Kansas City, Missouri, August 22, 1967 -- George A. Robinson
13. Conferences with RCU personnel at Lincoln, Nebraska and Des Moines, Iowa to discuss unit staffing, activity and development of information services, August 28-29, 1967 -- Donald E. Elson, George A. Robinson

October 1, 1967 - September 30, 1968

1. A series of conferences with local CAMPS organizations in the State of Kansas -- George A. Robinson

2. A series of planning meetings with representatives of the Ozarks Regional Commission and Kansas State Board for Vocational Education on vocational education activities in Southeast Kansas -- C. E. Barthel, Jr., Frank T. Jacobs

3. A series of conferences of the Ad Hoc Committee of Research Coordinating Unit Personnel for developing guidelines for use in RCU information systems, ERIC Clearinghouse on Vocational-Technical Education, Ohio State University, Columbus, Ohio -- George A. Robinson

4. National Invitational Research Dissemination Workshop sponsored by the ERIC Clearinghouse on Vocational-Technical Education, The Ohio State University, Columbus, Ohio, October 11-13, 1967 -- George A. Robinson

5. Statewide Conference on Educational Research, College of Education, Kansas State University, Manhattan, Kansas, October 27, 1967 -- George A. Robinson

6. American Vocational Association Convention Research Training Seminar and American Vocational Association Convention, Cleveland, Ohio, December 2-5, 1967 -- George A. Robinson

7. Kansas Vocational Association Convention, Wichita, Kansas, February 9-10, 1968 -- George A. Robinson

8. Central Regional Seminar in Agriculture Education, Chicago, Illinois, February 19-21, 1968 -- George A. Robinson

9. Kansas Young Farmer Convention, Kansas State University, Manhattan, Kansas, March 2, 1968 -- George A. Robinson

10. National Conference on the Diffusion of Educational Ideas, Michigan State University, East Lansing, Michigan, March 26-28, 1968 -- George A. Robinson

11. Annual Trade and Technical Education Workshop, Pittsburg State College, Pittsburg, Kansas, June 4, 1968 -- George A. Robinson

12. Conferences at the Rocky Mountain Educational Laboratory, Greeley, Colorado, June 25, 1968 -- George A. Robinson

13. Institute on Manpower Information for Vocational-Technical Education, University of Connecticut, Storrs, Connecticut, July 8-12, 1968 -- George A. Robinson

October 1, 1968 - June 30, 1969

1. National Future Farmers of America Convention, Kansas City, Missouri, October 16, 1968 -- George A. Robinson

2. North Central Regional Research Coordinating Unit Staff Meeting, Madison, Wisconsin, November 13-14, 1968 -- C. E. Barthel, Jr.

3. Statewide Conference on Health Resources, Topeka, Kansas, December 3, 1968 -- C. E. Barthel, Jr., Frank T. Jacobs

4. National Conference on Research (1968 Vocational Education Amendments), Oklahoma City, Oklahoma, February 18-19, 1969 -- Frank T. Jacobs and George A. Robinson

5. Ad Hoc Committee of Research Coordinating Unit Personnel Meeting on Education Resources, Information Center for Vocational-Technical Education, The Ohio State University, Columbus, Ohio, February 20-21, 1969 -- George A. Robinson

6. National Research Coordinating Unit Conference, Salt Lake City, Utah, March 24-25, 1969 -- C. E. Barthel, Jr., George A. Robinson

7. A series of planning conferences for Statewide Conference on Guidance -- Frank T. Jacobs

APPENDIX D

Staff Summary

Name and Title	Funds Federal	Local	Period of Employment	% of Time or Consultant Days
H. H. Young				
Acting Director	X		10/1/66 - 2/1/67	100%
George A. Robinson				
Director	X		2/10/67 - 6/30/68	100%
Director of Research	X		7/1/68 - 6/30/69	100%
Christopher E. Barthel, Jr.				
Director		X	7/1/68 - 3/30/69	25%
Thelma Mifflin				
Administrative Assistant		X	10/1/66 - 6/30/69	33.3%
Raymond Coleman				
Research Coordinator		X	7/1/68 - 8/31/68	100%
Frank T. Jacobs				
Coordinator of Information and Field Services	X		8/15/68 - 6/30/69	100%
Donald E. Elson				
Coordinator of Information Services (Temporary)	X		7/1/67 - 8/31/67	100%
Research Assistant	X		9/15/67 - 8/31/68	50%
Shanker D. Shrestha				
Coordinator of Field Services (Temporary)	X		6/20/67 - 10/1/67	50%
Statistician	X		10/1/67 - 1/31/68	100%

APPENDIX D

Staff Summary (Continued)

Name and Title	Funds Federal	Local	Period of Employment	% of Time or Consultant Days
Gary Luttijohn Research Assistant	X		9/15/67 - 2/15/68	50%
Joseph E. DeMichele Research Assistant	X		2/15/68 - 8/15/68	50% (full-time summers)
Ron Hertig Research Assistant	X		2/1/68 - 3/31/68 4/1/68 - 6/30/68 7/1/68 - 8/31/68	50% 40% 30%
Gary Brown Research Assistant	X		2/1/68 - 3/31/68 4/1/68 - 6/30/68 7/1/68 - 7/31/68	50%
Thomas L. Larson Research Assistant	X		10/1/68 - 6/30/69	30%
Everett Clover Consultant	X		10/17-18/67	1.5 Days
Mildred Jones Information Assistant	X		8/1/68 - 5/31/69	100%
Claudia Partlow Secretary	X		1/12/67 - 8/3/67	100%
Phyllis Varner Secretary	X		10/1/67 - 1/31/68	100%

APPENDIX D

Staff Summary (Continued)

Name and Title	Funds		Period of Employment	% of time or Consultant Days
	Federal	Local		
Lynn Volkert Secretary	X		10/10/67 - 6/30/68	100%
Claudia Fugate Secretary	X		7/21/68 - 6/30/69	100%

APPENDIX E

Inventory of Equipment - June 30, 1969

Item	Description	Cost
Typewriter	20" IBM	$477.00
Typewriter	13" IBM	423.00
Desk	Executive	167.00
Chair	Swivel	58.00
Chair	Side	48.00
File	4 Dr. Hon (letter)	67.45
Chair	Swivel	78.40
Chair	Side	56.00
File	4 Dr. Hon (letter)	67.45
Desk	Executive	190.40
Desk	Type (Secy)	198.00
Mimeograph	AB Dick	522.50
Calculator	Victor Comptometer	503.23
Shelving	Steel	129.50
Chair	Secy (Cramer)	37.50
Chair	Secy (Cramer)	37.50
Desk	Secretary	125.00
Scale	Postal	8.95
Punch	#10	4.73
File	4 Dr. legal	74.25
Table	Fole Library	35.00
Chairs, four	Side	190.00
Kopy Aid	Type	7.42
Desks, two	Jafco Conf.	282.70
Bookcase	3 Shelf	39.00
Tables, three	Small	18.00
Table	Fole, Mimeo	39.15
Chairs, two	Desk - Exec.	148.80
	Total	$4,033.93